



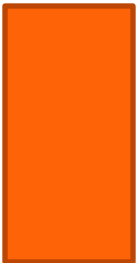
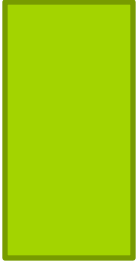
# Building Energy Disclosure and Reporting Ordinance

## Full Overview





# Background



In 2010, the Mayor's Climate Action Leadership Committee, which is composed of public, private, and non-profit sector leaders from around the City, recommended that the City establish an energy reporting and disclosure requirement for Boston buildings. The Leadership Committee further recommended that the reporting be done through ENERGY STAR Portfolio Manager and that the City work with utilities to enable automatic transfer of energy data. The establishment of this requirement would provide information to owners, residents, prospective buyers and tenants, and, through education and the operation of the market, create incentives to participate in energy efficiency programs. Energy efficiency in existing buildings is the single most important component of the City's plan to reduce greenhouse gas emissions 25 percent by 2020. By passing this Ordinance, Boston would join the ranks of New York City, Philadelphia, Washington, D.C., Seattle, San Francisco, and other major U.S. cities that have enacted energy reporting and disclosure requirements in their jurisdictions.

# What the proposed Ordinance does...

- Ensures that building owners are aware of their energy and water use and greenhouse gas emissions.
- Alerts owners of the opportunities to reduce their energy and water use by showing them the range of energy and water use of similar buildings within the city.
- Requires buildings that do not have high energy performance or are not showing continuous improvement to perform an energy audit or similar evaluation every five years to ensure that owners are aware of efficiency opportunities.

# What it does not do...

- Require buildings to achieve any particular level of energy efficiency.
- Penalize buildings based on their energy efficiency; the penalties in the ordinance are only for failing to report.
- Require buildings owners to implement energy efficiency upgrades.
- Hold building owners responsible for tenants' failure to disclose their energy and water use.

# Why Disclose Building Energy Data?

- Reduce Greenhouse Gas Emissions
- Smarter Government
- Energy Efficiency
- Consumer Transparency
- Green Economy

New York City

California

Washington, DC

Seattle

**Thus far, two states and seven cities in the U.S. have adopted building energy disclosure laws**

Philadelphia

San Francisco

Austin, TX

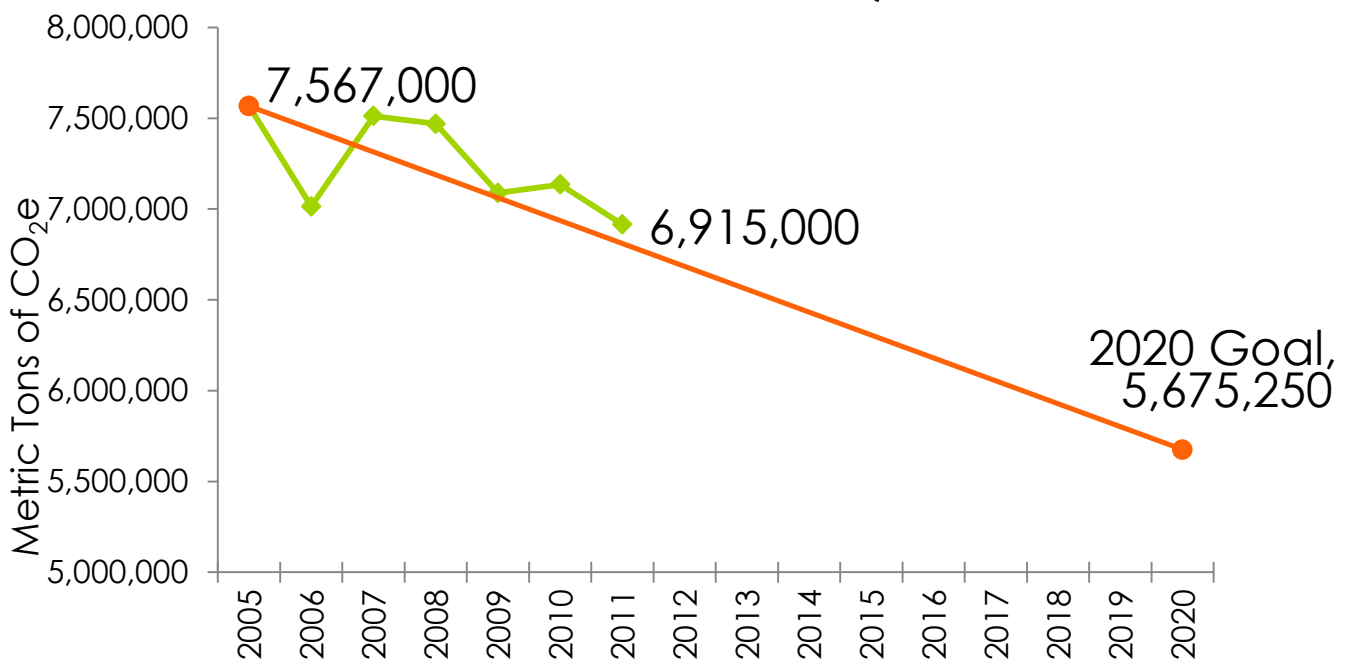
Washington State

Minneapolis

# Reduce Greenhouse Gas Emissions

The Ordinance was recommended by the Boston Climate Action Leadership Committee, a task force that included representatives from many sectors of the business community. It is an important component of the City's comprehensive climate action plan, which has a goal of reducing greenhouse gases 25 percent by 2020. The built environment currently accounts for approximately 75 percent of Boston's total GHG emissions. Ensuring that the City's building owners and property managers are aware of their energy use is an important first step in reducing overall emissions. If a reporting and disclosure policy were to be adopted nation-wide, it would reduce annual energy consumption in the U.S. building sector by approximately 0.2 quadrillion Btus by 2020, equal to taking more than 3 million cars off the road each year (Burr, 2012).

## Boston GHG Emissions, 2005 - 2011



# Smarter Government

The data reported to the City will enable the City to more effectively develop technical assistance programs and assist building owners in energy efficiency.

The wealth of new data may also lead to new discoveries. For example, after creating an energy reporting system for commercial buildings in New York City, officials found that asthma rates were higher in neighborhoods with less efficient buildings. They also found that new buildings often used more energy than older ones. (Lacy, 2013)



**"Local governments know very little about their privately owned buildings—so they don't even know the right questions to ask about their impact." - Andrew Burr, Institute for Market Transformation.**



# Energy Efficiency

Benchmarking is an important first step toward increasing awareness of building energy performance and motivating energy efficiency improvements among building owners, property managers and tenants. The proposed Ordinance would ensure energy and water use is measured, and what gets measured gets managed. A number of recent studies have indicated that benchmarking leads to energy savings and is a useful tool in identifying savings opportunities.

- Between 2008 and 2011, 35,000 buildings using ENERGY STAR's Portfolio Manager to benchmark their energy use reduced energy consumption by 2.4 percent each year on average. Buildings that started with below-average energy efficiency scores saw the most significant savings. (US EPA, 2012)
- A national disclosure policy would reduce energy costs for building owners, consumers and businesses by approximately \$3.8 billion through 2015 and more than \$18 billion through 2020. (Burr, 2012)
- A Building Operations Management survey of hundreds of facility managers who use Portfolio Manager found that 70 percent used ENERGY STAR to guide energy efficiency upgrade plans and 67 percent used ENERGY STAR to help justify an energy efficiency project. (Actman, 2013)

**“This ENERGY STAR partnership promotes a market-based approach to energy conservation and environmental protection that allows businesses to be more competitive and more apt to change the way industry views environmental awareness — from a burden to a competitive point of difference.” - Bill Stasiewicz, Managing Partner, Pizza Hut of Gainesville (ENERGY STAR, n.d.)**



The energy audit requirement for buildings that do not have high or improving energy performance is an important component of the Ordinance. San Francisco, which also has an audit requirement, found that the audit was essential to help medium-sized buildings in particular achieve gains from their ordinance. Prior to the ordinance, medium-sized buildings were less likely to use tools such as energy audits and building energy modeling, which can help identify cost effective energy efficiency investment opportunities.



# Consumer Transparency



Consumers rely on product labeling for important purchase decisions such as nutritional information for food and fuel economy for vehicles. This proposed Ordinance will empower those in the marketplace with building efficiency information that is essential to benchmarking and motivating energy efficiency investment amongst building owners and property managers. Recent studies have found that buildings that demonstrate superior energy efficiency through a third party rating system such as LEED certification or ENERGY STAR rating, experience an advantage in the marketplace. For example, ENERGY STAR office buildings on average use 40 percent less energy and command 13 percent-higher rental rates compared to their peers. LEED buildings sell for an average of \$171 more per square foot and their tenants report fewer sick days than those occupying non-LEED office buildings (Webster, 2013). This demonstrates that prospective buyers and tenants value building energy performance and are willing to pay a premium for it. As a result, this Ordinance will help consumers make informed purchasing and leasing decisions and encourage building owners to invest in energy efficiency.

**“Imagine a world where cars and trucks didn’t have fuel economy stickers, and not a single snack or beverage carried a nutritional label. Without that information, there would be little competition among manufacturers to make fuel-efficient vehicles or healthier foods – and little demand for them – because nobody would know the difference.” –**

***Institute for Market Transformation***

# Green Economy

The proposed Ordinance will bolster the green economy in the City of Boston due to an increase in demand for energy efficiency services as building owners and managers identify cost effective energy efficiency investment opportunities. Already, Boston-based businesses that help owners reduce energy use are rapidly expanding and hiring. One such business located in the Innovation District added 500-full time jobs in their first four years and continues to grow.

A recent study examined the economic impacts of a nation-wide disclosure policy and found that it would create more than 23,000 net new jobs in 2015 and more than 59,000 jobs in 2020. It would also generate more than \$7.8 billion in private investment in energy efficiency measures through 2020, yielding \$3 to \$4 in energy cost savings for every dollar invested. (Burr, 2012)



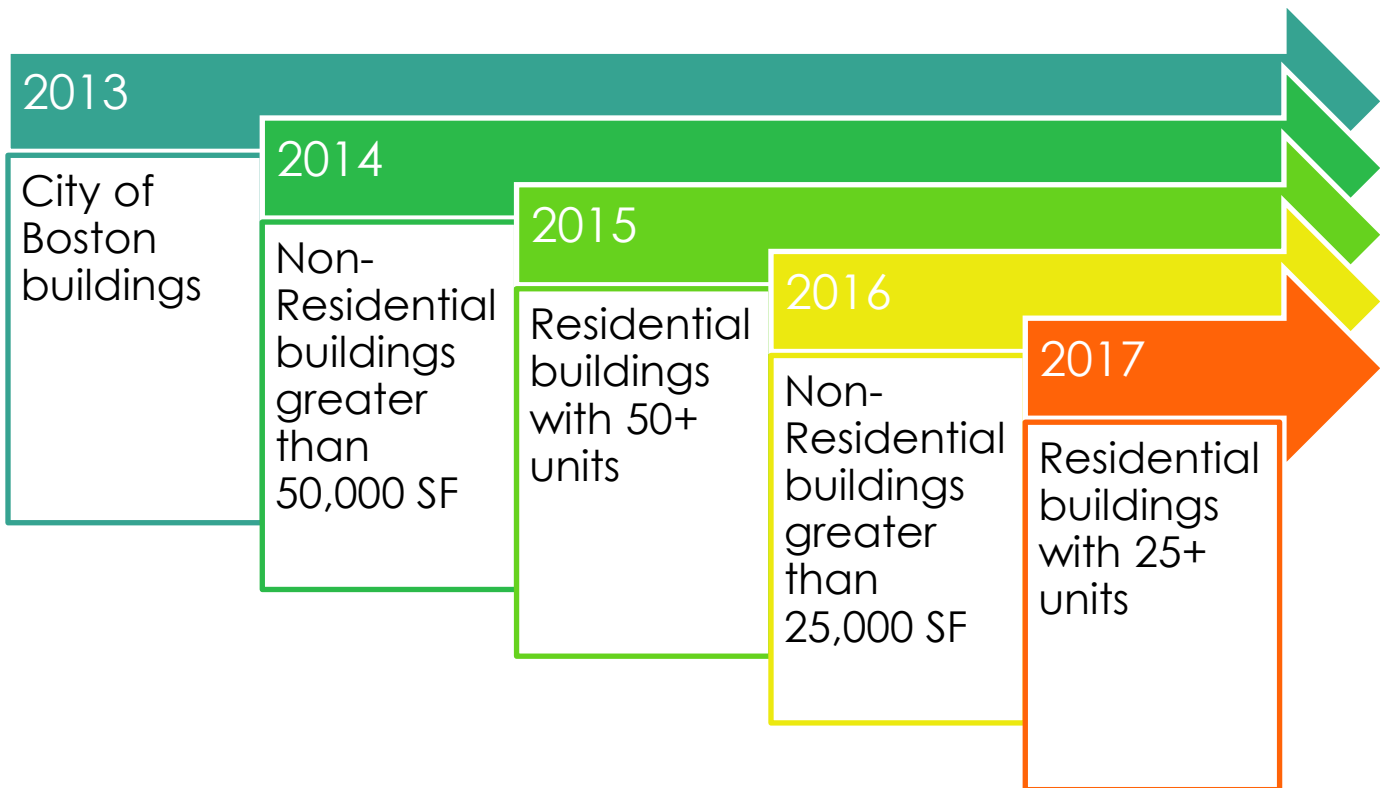
“If money-saving innovations sit on the shelf, the unemployed sit at home.” - Elton Sherwin, Silicon Valley venture capitalist

# Proposed Ordinance Overview

- Leading by example, the City would annually disclose energy and water use in all its facilities beginning in 2013 for the 2012 calendar year.
- All large and medium buildings or groups of buildings would be required to report annual energy use, ENERGY STAR rating (if applicable), water use, and greenhouse gas emissions through ENERGY STAR Portfolio Manager or an equivalent mechanism as approved by the Air Pollution Control Commission.
- The requirement would be phased in over 5 years and would ultimately apply to non-residential buildings 25,000 square feet or greater and residential buildings with 25 or more units.
- The City would make energy and water use per square foot, ENERGY STAR ratings, greenhouse gas emissions, and other identifying and contextual information for individual buildings available online.
- Buildings with ENERGY STAR ratings\* below the 75<sup>th</sup> percentile and not meeting other exemption criteria (to be developed by the city, i.e. high performing buildings that do not qualify for any ENERGY STAR rating or that show continuous improvement) would be required to conduct energy audits or other evaluations every 5 years to identify opportunities for energy efficiency investment. Building owners would not be required to act on the audit.
- Tenants would be required to provide energy and water use data to building owners.
- The development of regulations and implementation of the ordinance would be overseen by the Air Pollution Control Commission.

\*ENERGY STAR rates buildings from 1 to 100 using comparisons based on type of building, level of use, and other characteristics.

# Proposed Schedule



# Support

## Energy Efficiency

Renew Boston and its utility partners have extensive programs and resources to assist building owners in reducing energy use. Renew Boston is working closely with its utility and other partners to ensure that owners who are ready to undertake energy efficiency work will find all the technical and financial support available.



**nationalgrid**



## Direct Reporting of Utility Data

The City is working with all the utilities in the City and with the Massachusetts Public Utility Commission to facilitate direct reporting by utilities of whole-building data to the building owners or to EPA's Portfolio Manager, the primary tool for collecting data. This would eliminate the need for owners to collect data from tenants.



## Compliance

The Office of Environmental and Energy Services will work with stakeholders to provide outreach and technical assistance in fulfilling the reporting requirements.



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